

# Peixiao WANG

## About Me



I am currently an Assistant Professor of State Key Laboratory of Geographic Information Science and Technology, Institute of Geographic Sciences and Nature Resources Research, Chinese Academy of Sciences. I received Ph.D. degree from State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University in 2023, and received the M.S. degree from The Academy of Digital China, Fuzhou University in 2020. During the past years, I have published over 20 refereed journal articles and conference papers as first or corresponding author. My research focus on spatiotemporal data mining, spatiotemporal prediction, social computing, and public health. Email: peixiaowang@outlook.com

## EMPLOYMENT

◆ Aug 2025 - now: **Institute of Geographic Sciences and Nature Resources Research,** Assistant Professor  
**Chinese Academy of Sciences**

State Key Laboratory of Geographic Information Science and Technology

◆ Jul 2023 – Aug 2025: **Institute of Geographic Sciences and Nature Resources** Postdoctoral Fellow  
**Research, Chinese Academy of Sciences**

State Key Laboratory of Resources and Environmental Information System

## EDUCATION

◆ Sep 2020-Jun 2023: **Wuhan University** Advisor: **Prof. Tong Zhang**  
State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (Doctor in Geographic Information Science) Wuhan, Hubei, China

◆ Sep 2017-Jun 2020: **Fuzhou University** Advisor: **Prof. Sheng Wu**  
The Academy of Digital China (Master in Surveying and Mapping Engineering) Fuzhou, Fujian, China

◆ Sep 2013-Jun 2017: **Shandong University of Science and Technology** Advisor: **Prof. Naixia Mou**  
College of Geodesy and Geomatics (Bachelor in Geographic Information Science) Qingdao, Shandong, China

## PUBLICATION

- ◆ **Peixiao Wang**, Tao Hu, Fei Gao, Ruijie Wu, Wei Guo, et al. A Hybrid Data-Driven Framework for Spatiotemporal Traffic Flow Data Imputation[J]. **IEEE Internet of Things Journal**. 2022, 9(17):16343-16352. (SCI)
- ◆ **Peixiao Wang**, Hengcai Zhang, et al. A lightweight spatiotemporal graph dilated convolutional network for urban sensor state prediction [J]. **Sustainable Cities and Society**. 2024. Accepted. doi: 10.1016/j.scs.2023.105105 (SCI)
- ◆ **Peixiao Wang**, et al. A Multi-view Bidirectional Spatiotemporal Graph Network for Urban Traffic Flow Imputation[J]. **International Journal of Geographical Information Science**. 2022. 36(6):1231-1257. (SSCI)
- ◆ **Peixiao Wang**, Yan Zhang, et al. Urban traffic flow prediction: a dynamic temporal graph network considering missing values [J]. **International Journal of Geographical Information Science**. 2023. 37(4):885-912. (SSCI)

- ◆ **Peixiao Wang**, Tong Zhang, et al. Adding attention to the neural ordinary differential equation for spatio-temporal prediction [J]. **International Journal of Geographical Information Science**. 2024. 38(1). Accepted. (SSCI)
- ◆ **Peixiao Wang**, Tao Hu, Hongqiang Liu, et al. Exploring the impact of under-reported cases on the COVID-19 spatiotemporal distributions using healthcare workers infection data. **Cities**. 2022, 123:103593. (SSCI)
- ◆ **Peixiao Wang**, Hui Ren, Xinyan Zhu, et al. Spatiotemporal Characteristics and Factor Analysis of SARS-CoV-2 Infections among Healthcare Workers in Wuhan, China[J].**Journal of Hospital Infection**. 2021, 110: 172-177. (SCI)
- ◆ **Peixiao Wang**, Sheng Wu, Hengcai Zhang, et al. Indoor Location Prediction Method for Shopping Malls Based on Location Sequence Similarity[J].**ISPRS International Journal of Geo-Information**. 2019,8(11):517. (SCI)
- ◆ **Peixiao Wang**, Tong Zhang, et al. Traffic Condition Estimation and Data Quality Assessment for Signalized Road Networks using Massive Vehicle Trajectories. **Journal of Ambient Intelligence and Humanized Computing**. 2022. doi: 10.1080/13658816.2022.2032081. (SCI)
- ◆ **Peixiao Wang**, et al. Detection of Indoor High-Density Crowds via Wi-Fi Tracking Data [J]. **Sensors**, 2020, 20(18), 5078. (SCI)
- ◆ **Peixiao Wang**, et al. Spatiotemporal Differences of COVID-19 Infection Among Healthcare Workers and Patients in China From January to March 2020[J].**IEEE Access**.2021,9(1):28646-28657. (SCI)
- ◆ **Peixiao Wang**, Wang Hongen,et al. A hybrid Markov and LSTM model for indoor location prediction[J]. **IEEE Access**. 2019,7(1):185928-185940. (SCI)
- ◆ **Peixiao Wang**, el at. Predicting Indoor Location based on a Hybrid Markov-LSTM Model[C].//**The 18th International Symposium on Web and Wireless Geographical Information Systems, Springer**,2020.(EI)
- ◆ **Peixiao Wang**, Tong Zhang, Shichao Nie, Jinxuan Yang. A Causal Graph Convolutional Network considering Missing Values for Spatiotemporal Prediction [J]. **Acta Geodaetica et Cartographica Sinica**, 2022. accepted (EI)
- ◆ **Peixiao Wang**, Hengcai Zhang, Haibo Wang, Sheng Wu. Spatial-temporal clustering by fast search and find of density peaks [J]. **Acta Geodaetica et Cartographica Sinica**, 2019, 48(11):1380-1390. (EI)
- ◆ **Peixiao Wang**, Haibo Wang, Mengying Fu, Sheng Wu. Research on Semantic Location Prediction of Indoor Users [J]. **Journal of Geo-Information Science**, 2018, 20(12): 1689-1698. (EI)
- ◆ **Peixiao Wang**, Sheng Wu, Hengcai Zhang, el at. A Method for Identifying Spatial and Temporal Aggregation Area of Indoor Crowd [J]. **Geomatics and Information Science of Wuhan University**.2021, 46(5): 790-798. (EI)
- ◆ Hui Ren, **Peixiao Wang**, Wei Guo, Xinyan Zhu. Exploring the Spatiotemporal Characteristics of COVID-19 Infections among Healthcare Workers: A Multi-Scale Perspective[J]. **ISPRS International Journal of Geo-Information**. 2021,10(10):691. (SCI)
- ◆ Mengying Fu, **Peixiao Wang**, Hengcai Zhang, Sheng Wu. A Crowdsourcing Method for Indoor Navigation Network [J]. **Journal of Geomatics Science and Technology**, 2019,36(01):100-104. (CSCD)
- ◆ Xin Fu, Hengcai Zhang, **Peixiao Wang**. Automatic Construction of Indoor 3D Navigation Graph from Crowdsourcing Trajectories[J].**ISPRS International Journal of Geo-Information**. 2021,10(3):146. (SCI)
- ◆ Mengying Fu, Hengcai Zhang, **Peixiao Wang**, Sheng Wu, el at. A Method for Constructing Indoor Navigation Networks based on Moving Object Trajectory [J]. **Journal of Geo-Information Science**, 2019, 21(5): 631-640.(EI)
- ◆ Tao Hu, Siqin Wang, Bing She, Mengxi Zhang, Xiao Huang, Yunhe Cui, Jacob Khuri, Yaxin Hu, Xiaokang Fu,

Xiaoyue Wang, **Peixiao Wang**, et al. Human mobility data in the COVID-19 pandemic: characteristics, applications, and challenges[J]. **International Journal of Digital Earth**. 2021,14(9): 1126-1147. (SCI)

- ◆ Tao Hu, Wendy Guan, Xinyan Zhu, Yuanzheng Shao, Lingbo Liu, Jing Du, Hongqiang Liu, Huan Zhou, Jiale Wang, Bing She, Luyao Zhang, Zhibin Li, **Peixiao Wang**, et al. Building an Open Resources Repository for COVID-19 Research[J]. **Data and Information Management**. 2020, 4(3): 1-18.

## Journal Reviewer

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- ◆ Acta Geodaetica et Cartographica Sinica
- ◆ Geomatics and Information Science of Wuhan University
- ◆ IEEE Access
- ◆ Architectural Engineering and Design Management
- ◆ Wireless Communications and Mobile Computing
- ◆ BMC Medical Informatics and Decision Making